

DEPARTMENT OF OCEANOGRAPHY

<http://ocean.tamu.edu/>

Head: S. Yvon-Lewis

Graduate Director: C. Wiederwohl

Degrees

Degrees of Master of Science and Doctor of Philosophy are offered in oceanography. The department also offers the Master of Ocean Science and Technology (MOST) non-thesis professional degree. The Department of Oceanography can also serve as the “home” department for the Master of Geoscience degree. The MGsc is a non-thesis degree that provides a multidisciplinary background in the geosciences, appropriate for science teachers in public schools, or for individuals interested in environmental issues, for example. The department also offers a certificate in Ocean Observing, usually taken in addition to an MS or PhD degree.

The Department of Oceanography has combined 5-year Bachelor's/MOST Programs in conjunction with Environmental Geosciences, Atmospheric Sciences and Geology. These combined programs offer motivated and exceptional students the opportunity to achieve aspirations in an efficient program at Texas A&M, completing a Bachelor's degree in one of these majors: Environmental Geosciences (B.S.), Meteorology (B.S.), Geology (B.S. or B.A.) and the Master of Ocean Science and Technology degree in 5 years. There are only two courses used for dual credit in this program. There is a total of 150 hours of coursework. The concurrent degree program enables these motivated students to coordinate the required B.S coursework (114 undergraduate credit hours plus 6 dual credit graduate courses) and MOST coursework (36 credit hours including the 6 dual credit graduate courses) to complete the required credit hours for each degree without diminishing scope or quality of work within 5 years.

Oceanography

Oceanography is the interdisciplinary science that focuses on the ocean, its contents and its boundaries. Whereas typical graduate programs lead to progressively greater amounts of specialization, oceanography as an interdisciplinary field admits graduates of specialized areas such as biology, chemistry, geology, geophysics, mathematics, physics or engineering and initially generalizes and broadens their education with a core of required courses. These core courses include the four specializations of the oceanography program—biological, chemical, geological/geophysical and physical oceanography—as well as a seminar covering the state of the science. After this exposure to the interdisciplinary nature of oceanography, the graduate student refocuses in his or her particular subject area to pursue research at the leading edge of the science.

Required prerequisites are the equivalent of a BS degree and basic courses in the fields mentioned above. All students are expected to have had mathematics through integral calculus, at least one year each of physics and chemistry, and at least one survey course in biology and geology. These are in addition to the usual amount of coursework in their major field of science or engineering.

To qualify for an advanced degree in oceanography, the student must demonstrate an ability to apply basic science to the marine environment. This capability requires a combination of principles and methods and

a certain body of knowledge unique to oceanography; a student of oceanography must become conversant in all of the marine sciences.

Facilities and Participation in Research

Facilities include office, laboratory and classroom space in the 15-story David G. Eller Building for Oceanography and Meteorology on the College Station campus; the Geochemical and Environmental Research Group, which occupies 20,000 square feet of laboratory and office space and a warehouse-shop area of 8,000 square feet; space at the Texas A&M University Riverside Campus; office and dock facilities on Pelican Island in Galveston, Texas. The department maintains a network of high performance workstations, personal computers and data storage facilities for use in the collection and analysis of data and for ocean modeling and marine geophysical studies. High speed internet connections allow faculty and students to connect to outside supercomputer centers such as those at NCAR. Graduate students pursuing M.S. or PhD degrees usually take an active part in research grants and contracts awarded to individual professors or research teams by federal and state agencies, industry and private foundations.

Faculty

Baldauf, Jack G, Professor
Oceanography
PHD, University of California, Berkeley, 1985

Campbell, Lisa, Professor
Oceanography
PHD, State University of New York at Stony Brook, 1985

Chang, Ping, Professor
Oceanography
PHD, Princeton University, 1988

Chapman, Piers, Research Professor
Oceanography
PHD, University of Wales, UK, 1983

Dimarco, Steven F, Professor
Oceanography
PHD, University of Texas at Dallas, 1991

Fitzsimmons, Jessica N, Associate Professor
Oceanography
PHD, Massachusetts Institute of Technology, 2013

Gardner, Wilford D, Senior Professor
Oceanography
PHD, Massachusetts Inst of Technology, 1978

Gold Bouchot, Gerardo, Professor
Oceanography
PHD, CINVESTAV Merida, 1991

Henrichs, Darren, Instructional Assistant Professor
Oceanography
PHD, Texas A&M University, 2012

Hetland, Robert D, Professor
Oceanography
PHD, Florida State University, 1999

Jochens, Ann E, Professor Of The Practice
Oceanography
PHD, Texas A&M University, 1997
JD, University of Oregon, 1977

Knap, Anthony H, Professor
Oceanography
PHD, University of South Hampton, 1978

Orsi, Alejandro H, Professor
Oceanography
PHD, Texas A&M University, 1993

Petrik, Colleen, Research Assistant Professor
Oceanography
PHD, Massachusetts Institute of Technology, 2011

Potter, Henry, Assistant Professor
Oceanography
PHD, University of Miami, 2014

Richardson, Mary J, Senior Professor
Oceanography
PHD, Massachusetts Institute of Technology, 1980

Shamberger, Kathryn E, Assistant Professor
Oceanography
PHD, University of Washington, 2011

Slowey, Niall C, Professor
Oceanography
PHD, Massachusetts Institute of Technology, 1991

Stoessel, Achim, Associate Professor
Oceanography
PHD, Universitat Hamburg, 1990

Sylvan, Jason B, Associate Professor
Oceanography
PHD, Rutgers University, 2008

Thomas, Deborah J, Professor
Oceanography
PHD, University of North Carolina at Chapel Hill, 2002

Thornton, Daniel C, Professor
Oceanography
PHD, Queen Mary Westfield College, University of London, 1996

Thyng, Kristen M, Research Assistant Professor
Oceanography
PHD, University of Washington, 2012

Wiederwohl, Christina L, Instructional Associate Professor
Oceanography
PHD, Texas A&M University, 2012

Yvon-Lewis, Shari A, Professor
Oceanography
PHD, University of Miami, 1994

Zhang, Yige, Assistant Professor
Oceanography
PHD, Yale University, 2015

Masters

- Master of Ocean Science and Technology in Ocean Science and Technology (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/geosciences/oceanography/most/>)
- Master of Science in Oceanography (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/geosciences/oceanography/ms/>)

Doctoral

- Doctor of Philosophy in Oceanography (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/geosciences/oceanography/phd/>)